194. Leopold, A. S. 1953. Intestinal morphology of gallinaceous birds in relation to food habits. J. Wildl. Manage. 17:197-203.

195. Leopold, A. S. 1972. Wildlife of Mexico: the game birds and mammals. Univ. Calif. Press, Berkeley. 568pp. **Notes**: Text includes a detailed physical description, range, migration, habitat preferences, reproduction, and foods.

196. Leopold, A. S. 1977. The California quail. Univ. Calif. Press, Berkeley. 281pp. **Excerpt**: The Mountain Quail, *Oreortyx pictus*, occurs widely through California, from northern Baja California into Oregon. Its range, like that of the California Quail, has been extended to the north and east by transplant. Several species whose ranges overlap are separated on ecologic rather than geographic grounds. That is to say, they occupy different habitats in the same general area. This situation is well illustrated by the relationship between the California Quail and the Mountain Quail. The ranges of these two species overlap substantially. But on the ground there is actually a fairly clear differentiation of habitat with much less overlap than the map would indicate. The Mountain Quail occurs largely in conifer or oak timber, or in dense chaparral. The California Quail utilizes these cover types but usually frequents openings or edge situations rather than continuous dense cover. In some areas, Mountain Quail make substantial vertical migrations, moving well up into mountain forests in summer, dropping down to lower snowless zones in winter. On the west slope of the Sierra Nevada, for example, these seasonal movements may extend over distances of 50 miles or more. In winter the two species often are associated on the same ranges, and at times may even occur in mixed flocks. Yet it is clear that the Mountain and California quails are differently adapted and have evolved to utilize different habitats in close proximity to one another with a minimum of overlap or competition.

197. Leopold, A. S., R. J. Gutiérrez, and M. T. Bronson. 1981. North American game birds and mammals. Charles Scribner's Sons, New York, N.Y. 198pp. **Excerpt**: Mountain quail are unique among United States quail in that some populations undertake annual altitudinal migrations of considerable distance on foot between winter and summer ranges. Sierra Nevada populations breed in coniferous communities and winter in the lower chaparral zone. They may be locally abundant in the Sierra and Coast ranges, but they frequent such dense brush and steep slopes that they are hunted much less than California quail. The birds are very secretive and when pursued tend to run rather than fly, thus further compounding hunting difficulties. The California quail and mountain quail are sometimes sympatric, but competition between the species is avoided through habitat selection and differences in diet. The mountain quail is a "sequential specialist," hulling acorns in the fall; eating mushrooms, flowers, and greens in winter; and digging for bulbs (*Lithophragma*) in spring and summer (Gutiérrez 1980). Although the mountain quail does consume some seeds and greens of annual plants, it is not dependent on them, as is the California quail. Daily drinking

water is necessary during hot weather. The clutch size of the mountain quail is the smallest of all the species of United States quail, averaging 7 to 9. Fall coveys are also small (6 to 12) and generally represent family groups or aggregations of adults that were unsuccessful the previous breeding season. Pairing is monogamous and males, unlike those of other Unites States quail, presumably share incubation duties with their mates, as indicated by well-developed brood patches found on most mountain quail males during the breeding season.

198. Lewin, V. 1971. Exotic game birds of the Puu Waawaa Ranch, Hawaii. J. Wildl. Manage. 35:141-155. **Abstract**: During the past decade a unique bird importation program has been undertaken on the Puu Waawaa Ranch of Leeward Hawaii Island. Thirty-five kinds (representing 33 species) of upland game birds, together with one species of waterfowl, natives of four continents, have been liberated. The origin, release data, site, and subsequent history are described for each of the exotic game birds released by the Puu Waawaa Ranch owners and by the State Division of Fish and Game on the island. Five game birds are still undergoing rapid range extension, 12 are maintaining their present population levels, and 18 are apparently unsuited to this area. The avifauna of Hawaii has been increase by the importation program but an immediate problem, with regard to possible deleterious effects on native birds, arises from the practice of liberating mainland-type mallards. The mainland mallard (*Anas platyrhynchos*) is closely related to the koloa or Hawaiian duck (*A. p. wyvilliana*) and poses a distinct genetic threat to the endemic form through hybridization. **Excerpt**: Mountain quail (*Oreortyx pictus*): This species was encountered on one occasion. On June 28, 1966, a male in near-breeding condition (testis 10.1 X 3.6 mm) was collected from a covey of six, within 0.5 mile of one of the original release sites. A small population thus survives around this mountain sanctuary (M7), where 52 birds were released in 1960, at 4,225 feet elevation, and where pukeawe bushes (*Styphelia temeiameiae*) form a predominant understory between widely scattered ohia trees. Two additional releases, totaling 36 birds, were made on two other sanctuaries in 1961 and 1963. All birds were of California game-farm origin.

199. Linsdale, J. M. 1936. The birds of Nevada. Pacific Coast Avifauna 23:1-145. **Notes**: Historical sightings or collections are documented from northwest of Reno; Incline on Lake Tahoe; Virginia Mountains near Pyramid Lake; Carson City; Big Creek Ranch, and Big and Alder creeks of the Pine Forest Mountains; Cat and Cottonwood creeks on Mount Grant; Birch and Kingston creeks of the Toyabe Mountains; White Mountains, Trail Canyon, Mount Magruder, and Little Log Spring in Esmeralda County; Granite Creek in Washoe County; and Jackson Mountain in Humboldt County.

200. Linsdale, J. M. 1951. A list of the birds of Nevada. Condor 53:228-249. **Excerpt**: Mountain Quail. *O. p. picta* is a sparse resident in the mountains of western part of the state; possibly not native at every place it now occurs.

201. Mailliard, J. 1921. Notes on the birds and mammals of Siskiyou County, California. Proc. Calif. Acad. Sci. Ser. 4(11):73-94.

202. Mailliard, J. 1923. Fall field work in Plumas and Yuba Counties, California, in 1922. Proc. Calif. Acad. Sci. Ser. 4(13):29-41.

203. Mailliard, J. 1923. Further notes on the birds and mammals of Siskiyou County, California. Proc. Calif. Acad. Sci. Ser. 4(13):7-28.

204. Mailliard, J. 1928. The birds and mammals of Modoc County, California. Proc. Calif. Acad. Sci. Ser. 4(6):261-359.

205. Malcomson, R. O. 1960. Mallophaga from birds of North America. Wilson Bull. 72:182-197.

206. Mallette, R. D. Date Unknown. Upland game of California. Second ed. California Dept. Fish and Game, Sacramento. **Excerpt**: The mountain quail is the largest of the native quail in North America. It is widely distributed over approximately 45 percent of the state in suitable habitat in the mountainous areas from the Mexican to the Oregon borders. Population densities do not reach those of the smaller quail. Approximately 5 percent of the quail taken by hunters in California are mountain quail. In 1968 this was estimated at 110,000 to 120,000 birds. **Notes**: The author also provides general information on physical description, migration behavior, covey size and content, reproduction and parental care, diet, voice, and consumptive values.

207. Marshall, J. T. 1988. Birds lost from a giant sequoia forest during fifty years. Condor 90(2):359-372. **Abstract**: Not all forest birds species breeding on Redwood Mountain, Tulare County, California in the 1930s are still there in the 1980s. Over the 50 years virgin giant sequoia forest of the saddle and east slope (within Kings Canyon National Park) remains unchanged but has lost the Olive-sided Flycatcher (*Contopus borealis*). The mixture of old and second-growth sequoias of Whitaker's Forest, where pines and undergrowth were removed and snags eliminated, is missing the Mountain Quail (*Oreortyx pictus*), Flammulated Owl (*Otus flammeolus*), North Pygmy-Owl (*Glaucidium gnoma*), Spotted Owl (*Strix occidentalis*), Hairy Woodpecker (*Picoides villosus*), and Olive-sided Flycatcher. Though unchanged today, the riparian alders of Eshom Creek on the west slope have lost Swainson's Thrush (*Catharus ustulatus*). Drastic logging by Sequoia National Forest has driven all of the above from the west slope ponderosa pine forest that surrounds Whitaker's Forest. New birds established at Whitaker's Forest by 1986 are the Common Raven (*Corvus corax*), House Wren (*Troglodytes aedon*), and Lincoln's Sparrow (*Melospiza lincolnii*). Intrusion of Brown-headed Cowbirds (*Molothrus ater*) has begun without yet affecting two abundant species of vireos. The Pileated Woodpecker (*Dryocopus pileatus*) is reduced; the Winter Wren (*Troglodytes troglodytes*) has greatly increased. I attempt to explain

avifaunal changes by comparing habitats over the 50-year interval. Disappearance of the flycatcher and thrush from unchanged, prime habitat must be caused by destruction of corresponding forests in Central America, where these birds maintain their winter territories.

208. Mason, L. 1984. Habitat use by female mountain quail in western Oregon. Unpubl. Res. Proposal. Dept. Fish. and Wildl., Oreg. State Univ. 10pp. **Notes**: Proposal objectives are to 1) describe components of foraging and nesting habitats used by female mountain quail during pre-nesting, incubation, and early brooding season, and 2) describe home range of mountain quail during nesting and brooding periods. Research was never conducted, no data was gathered, and no subsequent reports were written (M. Pope, Pers. Comm.).

209. Masson, W. V., and R. U. Mace. 1970. Upland game birds. Oreg. State Game Comm., Portland. Bull. No. 5. 44pp. **Excerpt:** Mountain quail are found in nearly every county of the state with the best populations located in the Coast and Cascade ranges and Malheur, Baker, and Wallowa Counties in eastern Oregon. Elsewhere, only scattered coveys are present. Brushy foothills, cut-over areas, edges of clearings, and burns are preferred in western Oregon, while the brushy draws and creek bottoms along foothills are favorite haunts east of the Cascades. Agricultural areas are not generally inhabited. **Notes**: Authors also include the following information on the subspecies *Oreortyx picta palmeri* and *O. p. picta*: physical description, mating and nesting habits, nests, clutch size, incubation, chick development, brood rearing, food habits, covey formation, roosting, migration, and escape behavior.

210. Mattocks, P. W. 1986. Northern Pacific Coast region: osprey through quail. Am. Birds 40(5):1245.

211. Mayr, E., and L. L. Short. 1970. Species taxa of North American birds. Publ. Nuttall Ornithol. Club 9:1-127.

212. McGregor, R. C. 1899. Some summer birds of Palamar Mountains, from the notes of J. Maurice Hatch. Condor 1:67-68. **Excerpt**: This list of birds, observed by Mr. Hatch on the Palamar Mountains, between June 16 and 21, 1897, . . . *Oreortyx pictus plumiferus*.-- Fairly common. A nest found June 19, contained 5 well incubated eggs.

213. McGregor, R. C. 1901. A list of the land birds of Santa Cruz County, California. Cooper Ornithol. Club, Pacific Coast Avifauna. 2:1-22.

214. McLean, D. D. 1930. The quail of California. California Div. Fish and Game Bull. 2. 47pp. **Notes**: The author includes the painted quail (*Oreortyx picta picta* Douglas) and the mountain quail (*O. p. plumifera* Gould) and provides information on other names, physical description, general distribution, association (habitat),

habits (voice, traveling, breeding, migration, nesting, nest parasitism by valley quail, feeding, home range, proximity to water, roosting, flushing during hunting, flavor, captive breeding, and predators), and foods. There is also a short section on the introduction of mountain quail and plumed quail into other states and countries.

215. Mead, R. 1962. A method of distinguishing mountain and valley quail by skeletal analysis. Calif. Fish and Game 48(2):117-121. **Excerpt**: The geographic ranges of the mountain quail (*Oreortyx picta*) and the valley quail (*Lophortyx californica*) frequently overlap. For this reason, an ecologist working on a population study, a naturalist or a paleontologist might wish to distinguish these species on the basis of skeletal remains. This paper proposes a method of identifying a single specimen without the use of other known skeletons for comparison.

216. Merriam, C. H. 1899. Results of a biological survey on Mount Shasta. USDA Div. Biol. Surv. North Am. Fauna. No. 16. 179pp.

217. Merrill, J. C. 1898. Notes on the birds of Fort Sherman, Idaho. Auk 15:14-22. **Excerpt**: I may say that early in 1897 about ten pairs of *Oreortyx pictus*, captured near Puget Sound, were liberated near the northern base of Mica Peak, and it was proposed to introduce the Bob white.

218. Messing, H. J. 1986. A late Pleistocene-Holocene fauna from Chihuahua Mexico. Southwest. Nat. 31:277-288. **Abstract**: Analysis of matrix from a small cave near Ciudad Jimenez, Chihuahua, Mexico, has revealed some fossils of probable Late Pleistocene-Holocene age. Extinct taxa include *Capromeryx* and *Coragyps occidentalis*. Extralimital finds include *Microtus pennsylvanicus*, *Cryptotis parva*, *Meotoma lepida*, *Cynomys* sp., and *Mustela nigripes*. Other possible extralimital forms are *Neotoma ? micropus*, *Meotoma cf. floridana*, *Neotoma ? cinerea*, and ? *Oreortyx pictus*. A new genus of rabbit is being described by Russel and Harris. Aquatic forms comprise the majority of the avian remains. Shells of the mollusk *Humboldtiana cf. torrei* were recovered. Lack of provenience data and accurate dates on the remains prevents any certain paleoreconstruction of the environment. However, speculation from the forms recovered indicates that the Late Pleistocene-Holocene of southwest Chihuahua probably was more mesic than today.

219. Michael, C. W. 1936. New nesting records for the Yosemite Valley. Condor 38:85-86. **Excerpt**: Mountain Quail (*O. picta*). For the first time in fifteen years these birds were noted on the valley floor during the month of July.

220. Michael, E. 1939. High lights in Yosemite bird reports for the summer of 1939. Yosemite Nat. Notes 18:126-127.

221. Miller, A. H. 1941. A review of centers of differentiation for birds in the western Great Basin Region. Condor 43:257-267. **Excerpt**: The race of Mountain Quail (*O. picta eremophila*), a bird of the mountains but not of the highest levels, is inseparable from populations in the southern Sierra Nevada and the mountains of southern California.

222. Miller, A. H. 1946. Endemic birds of the Little San Bernardino Mountains, California. Condor 48:75-79. **Notes**: The author identifies *Oreortyx picta russelli* as a new subspecies of mountain quail and includes a highly detailed physical description. Range of this subspecies includes the chaparral and pinon-juniper woodland of Little San Bernardino Mountains, from vicinity of Morongo Valley eastward, and suitable habitat near Twentynine Palms and Eagle Mountain, Riverside and San Bernardino counties, California. Text includes specific collection sites for specimens, compares the coloring of *russelli* with other subspecies, and discusses the general geographic range for each subspecies.

223. Miller, A. H. 1951. An analysis of the distribution of the birds of California. Univ. Calif. Publ. Zool. 50:531-624.

224. Miller, A. H., and R. C. Stebbins. 1964. The lives of desert animals in Joshua Tree National Monument. Univ. Calif. Press, Berkeley. 452pp. **Notes**: Includes information on the physical description, range, and occurrence of mountain quail in the monument. The authors included more extensive information on abundance, water use, habitat, voice, behavior, covey sizes, flight, foods, foraging methods, dusting sights, predation, reproduction, brood patches, age ratios, productivity, weights, plumage, taxonomy, and other general observations.

225. Miller, E. V. 1950. The life history and management of mountain quail in California. Final Prog. Rep., Proj. W-19-R. Calif. Dept. Fish and Game, Sacremento. 38pp. **Notes**: This report contains detailed information on social behavior, accidents, predation, censusing, migration and movement, reproduction, population characteristics, cover, water use and requirements, hunting, statewide surveys, and management recommendations. Charts and tables provide information on nest success, nest characteristics, nest predation, cover types, percent cover, distance from water, rainfall vs. nesting success, hunting mortality, covey sizes, and average weight. Graphs compare percent use vs. slope, herbaceous cover, interspersion of cover, clumping of cover, distance from cover, tree density, shrub height, and others.

226. Miller, L. H. 1911. Avifauna of the Pleistocene cave deposits of California. Univ. Calif. Publ. Geol. 6:386-400.

227. Miller, L. H. 1912. Contributions to avian paleontology from the Pacific Coast of North America. Univ. Calif. Publ. Geol. 7:61-115.

228. Mitchell, H. M. 1878. California mountain quail. For. and Stream 9:413.

229. Moore, J., M. Freehling, R. Platenberg, L. Measures, and J. A. Crawford. 1989. Helminths of California Quail (*Callipepla californica*) and Mountain Quail (*Oreortyx pictus*) in Western Oregon. J. Wildl. Diseases 25:422-424. **Abstract**: Eighty California Quail (*Callipepla californica*), collected from the E. E. Wilson Wildlife Area near Monmouth, Oregon (USA) during a 22 mo. period, were examined for gastrointestinal helminths. Eight birds were infected with three species of nematodes, *Heterakis isolonche*, *Dispharynx nasuta*, and *Capillaria* sp., and two species of cestodes, *Rhabdometra odiosa* and *Davainea* sp. Except for *D. nasuta*, prevalence did not exceed 5% despite mesic conditions in the collection area. Two mountain quail (*Oreortyx pictus*) were collected from Lane County, Oregon (USA), near Blue River Reservoir; both were infected with the nematode *Trichostrongylus tenuis*.

230. Morache, M., C. Chaffin, J. Naderman, and W. Melquist. 1985. Nongame Management Plan: 1986 to 1990. Species Management Plan, Id. Dept. Fish and Game, Boise. 26pp. **Excerpt**: Several species have restricted ranges, specific habitat requirements, or low numbers which may make them vulnerable to elimination from the state. Some species may be included in this category because our knowledge of them is limited and not because they are actually threatened. This classification may be used as a basis for preparing, in conjunction with other state and federal wildlife agencies, a state list of Threatened and Endangered species. Specifics on these species are provided in the appropriate section of this plan or other plans as indicated. These species are listed here to emphasize the Department's concern regarding their status in Idaho. Mountain quail: Upland game plan.

231. Moseley, R., and C. Groves. 1990. Rare, threatened and endangered plants and animals of Idaho. Nongame and Endangered Wildl. Prog., Id. Dept. Fish and Game, Boise. 33pp. **Notes**: Mountain quail (*Oreortyx pictus*) is listed by the Idaho Dept. Fish and Game as a Species of Special Concern, Category A - Priority Species. Species of Special Concern are "native species which are either low in numbers, limited in distribution, or have suffered significant habitat losses." Category A species are those "which meet one or more of the criteria above *and* for which Idaho presently contains or formerly constituted a significant portion of their range (i.e., priority species)." The Bureau of Land Management considers mountain quail a Sensitive Species: "those species that are 1) under status review by USFWS/NMFS; or 2) whose numbers are declining so rapidly that federal listing may become necessary; or 3) with typically small and widely dispersed populations; or 4) those inhabiting ecological refugia or other specialized or unique habitats." The U.S. Forest Service classifies mountain quail as a Sensitive Species in Region 4 National Forests in Idaho: "species identified by the Regional Forester for which population viability is a concern as evidenced by significant current or predicted downward trends in population numbers or density or significant current

or predicted downward trends in habitat capability that would reduce a species' existing distribution. Mountain quail's heritage rank is G5/SE?: G5=demonstrably secure throughout its range, though it may be quite rare in parts of its range, especially at the periphery; SE?=possibly exotic or introduced to the state of Idaho.

232. Moseley, R., and C. Groves. 1992. Rare, threatened and endangered plants and animals of Idaho. Nongame and Endangered Wildl. Prog., Id. Dept. Fish and Game, Boise. 38pp. **Notes**: Mountain quail (*Oreortyx pictus*) is listed by the Idaho Dept. Fish and Game as a Species of Special Concern, Category A - Priority Species. Species of Special Concern are "native species which are either low in numbers, limited in distribution, or have suffered significant habitat losses." Category A species "meet one or more of the criteria above *and* for which Idaho presently contains or formerly constituted a significant portion of their range (i.e., priority species)." U.S. Fish and Wildlife Service classifies this species as a C2 Candidate Species: "Taxa for which information now in possession of the U.S. Fish and Wildlife Service indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. Further biological research and field study may be needed to ascertain the status of taxa in this category." The Bureau of Land Management considers mountain quail a Sensitive Species: "those species that are 1) under status review by USFWS/NMFS; or 2) whose numbers are declining so rapidly that federal listing may become necessary; or 3) with typically small and widely dispersed populations; or 4) those inhabiting ecological refugia or other specialized or unique habitats." The U.S. Forest Service classifies mountain quail as a Sensitive Species in Regions 1 and 4 National Forests in Idaho: "Those animal species identified by the Regional Forester for which population viability is a concern as evidenced by significant current or predicted downward trends in population numbers or density or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution." Mountain quail's heritage rank is G5/SE: G5=demonstrably secure throughout its range, though it may be quite rare in parts of its range, especially at the periphery; SE=exotic or introduced to the state of Idaho.

233. Murphey, K. A. 1991. The Jarbidge rock art site: pictographs in the high desert country of southwestern Idaho. Id. Archaeol. 14(2):17-32. **Notes**: A figure representing a pictograph found at the Jarbidge rock site includes a sketch of an upland bird with distinct side bars and a single head plume. This pictograph may provide evident that mountain quail existed in Owyhee county prior to historic transplants and is therefore native to Idaho.

234. Murray, T. B. 1938. Upland game birds in Idaho and their future. Univ. Id. Bull. 33:55-60. **Excerpt**: Enormous coveys of California mountain quail were once found along the main course of the Salmon River in the vicinity of Whitebird and

extending south to the vicinity of Shoshone Falls in the Snake River canyon to the vicinity of the present town of Twin Falls and extending well back into the mountainous ranges adjacent to the open valleys and plains. It is reported that this bird was at one time comparatively numerous along the Clearwater River drainage extending from Lewiston to Stites. California mountain quail have been reduced more than 50 per cent in western Idaho by drouth and drastic changes in vegetative ground cover. Suitable food and cover have also been reduced more than 50 per cent in volume and extent during the past 30 years.

235. Neale, G. 1915. The California valley quail and introduced game birds. Vol 1. Calif. Fish and Game, San Francisco, Calif.

236. Nelson, A. L., and A. C. Martin. 1953. Game bird weights. J. Wildl. Manage. 17:36-37.

237. Nelson, E. W. 1875. Notes on birds observed in portions of Utah, Nevada, and California. Proc. Boston Soc. Nat. Hist. 17:338-365.

238. Nethaway, G. 1933. About the mountain quail. Game Breeder 37:151, 153. **Notes**: This article provides information on the habits of captive mountain quail and observations of wild birds. The author distinguishes between two varieties of mountain quail; the "brown-backed variety of Washington" and the "blue-backed variety of California." Information is provided on sex determining behavior, voice, and comparisons to Gambel's quail. Data indicates that the following 10 measurements are useful in distinguishing between mountain and valley quail: length of the ulna, humerus, tarsometatarsus, keel, and tibiotarsus; depth of the keel, clavicle keel, and ventral manubrial spine; width of the coracoid and ischium.

239. Nutall, T. 1832. A manual of the ornithology of the U.S. and of Canada land birds. Cambridge, Mass. 683pp.

240. Nuttall, T. 1840. Manual of the ornithology of the United States and Canada: the land birds. Hilliar, Gray & Co., Boston. 832pp.

241. O'Renick, J. 1993. Coast Range quail. Outdoor Life Oct.:75. **Excerpt**: We were hunting mountain quail in western Oregon's Tioga Game Management Area, west of Roseburg. Although Oregon has lots of quail, their distribution is spotty. Here, on the eastern slope of the Coast Range from the Umpqua River south is the state's hotspot. . . Although you have to fight your way through those Scotch boom thickets and five-year-old, grown-over former clearcuts, that is where you'll find coveys of quail. The birds also like downed logging waste and other thickly vegetated areas often covered with poison oak or blackberry briers. . . Most western Oregon mountain quail are found on U.S. Forest Service, Bureau of Land Management or timber company land that is open to the public.

242. Oates, E. W. 1901. Catalogue of the collection of birds' eggs in the British Museum (Natural History). Vol. 1. Taylor and Francis, London. 245pp. **Excerpt**: The single egg of the Plumed Partridge, or Mountain Quail, in the Collection is of a regular oval shape, smooth, with little gloss and a pale creamy-buff colour. It measures 1·31 by 1.

243. Oberholser, H. C. 1923. Notes on the forms of the genus *Oreortyx* Baird. Auk 40:80-84. **Notes**: Author includes physical descriptions, history of the nomenclature, general range, and geographical variations of coastal and interior forms of mountain quail.

244. Ogden, A. 1991. Drainages inventoried by Idaho Department of Fish and Game. Unpubl. Rep. Id. Dept. of Fish and Game, Boise. 35pp. **Notes**: This report details efforts to inventory historic mountain quail habitats in southwest Idaho during the spring of 1991. Drainages inventoried included Duncan, Cottonwood, Shoofly, Babbington/Alkali, Custer, Indian, Wildhorse, Bennett, Little Canyon, King Hill, and Sturgill creeks as well as Halfway Gulch. No mountain quail were heard or observed during the inventory, but mountain quail were found on U.S. Forest Service lands in the Middle Fork Boise drainage.

245. Ogilvie-Grant, W. R. 1893. Catalogue of the game birds in the collection of the British Museum. British Mus. Nat. Hist., London. 581pp.

246. Ogilvie-Grant, W. R. 1897. A hand-book to the game-birds. Vol. 2. Edward Lloyd, Ltd., London. **Notes**: Author includes information on nests, nesting habitat, clutch size, and eggs. Text also includes a general description of physical characteristics, range, and habits. The narrative on habits is composed of quotes from C. A. Alen and Captain Bendire.

247. Olson, A. C., Jr. 1942. A preliminary annotated check-list of the birds of northern Idaho. M.S. Thesis, Univ. Id., Moscow. 68pp. **Excerpt**: *Oreortyx picta.* Mountain Quail. -- Two adult males were collected by Arvey ten miles southwest of Riggins, Idaho County, in May, 1939. I observed two males one mile north of Kendrick, Latah County, on April 12, 1942. They seem restricted to a typical transition type of plant association.

248. Ormiston, J. H. 1966. The food habits, habitat and movements of mountain quail in Idaho. M.S. Thesis, Univ. Id., Moscow. 39pp. **Notes**: Objectives of the study were to evaluate food habits, habitats used, and plumage differences between the sexes. Data was collected from the Julietta area and from Big Canyon Creek, Idaho. Ormiston includes a general description, distribution, food habits, evaluation of plumage differences, and both seasonal and daily movements of mountain quail in these two study areas. Food habits information results from the analysis of 60 mountain quail crops. The author concludes that mountain quail in Idaho occur in brushy draws along the breaks of the Snake, Salmon, and

Clearwater Rivers; that seasonal movements are limited; that movements were related to availability of preferred foods; and that free water is essential. Emphasizes the need for greater knowledge of population dynamics and description of ideal habitats.

249. Orr, R. W. 1979. Raising mountain quail. Game Bird Breeders, Aviculturists, and Conserv. Gaz. 28(8):7-8. **Notes**: This article includes information on hatching eggs, substitute brooding hens, parasites, age of reproduction, breeding combinations (single pair, trios, multiple pairs), and the effect of a mild winter on laying success.

250. Pearson, T. G., ed. 1917. Birds of America. Doubleday & Co., Inc., Garden City, N.Y. **Notes**: Author includes information on other names, general description, nest and eggs, distribution, and general comments on life history and behavior.

251. Peck, M. E. 1911. A hybrid quail. Condor 13:149-151. **Excerpt**: An interesting hybrid quail, evidently *Oreortyx pictus plumiferus* X *Lophortyx californicus californicus*, was secured by Mr. Geo. D. Peck, April 1, 1911, on Silves River, Harney Co., Oregon, about two miles above the town of Burns. The specimen is a male in high plumage, and was one of a small flock of quail that a man had been feeding about his place during the winter. Whether there were any other hybrids in the flock, or whether the rest were all *O. p. plumiferus*, was not made out.

252. Peckham, M. C. 1971. Quail disease (ulcerative enteritis). Pages 185-233 in J. W. Davis, R. C. Anderson, L. Karstad, and D. O. Trainer, eds. Infectious and parasitic diseases of wild birds. Ia. Sate Univ. Press, Ames.

253. Pemberton, J. R., and H. W. Carriger. 1915. A partial list of the summer resident land birds of Monterey County, California. Condor 17:189-201. **Excerpt**: *Oreortyx picta plumifera*. Mountain Quail. Noted on the upper slopes of Santa Lucia Peak above 4000 feet, at the head of the Jolon valley, and in the coniferous forests near Cone Peak. It was not a common bird, but its loud whistling note was frequently heard.

254. Peterle, T. J. 1951. Intergeneric galliform hybrids: a review. Wilson Bull. 63:219-224.

255. Peters, J. L. 1934. Check-list of birds of the world. Vol. 2. Harvard Univ. Press, Cambridge, Mass. 401pp. **Notes**: Includes a brief description of the geographic distribution and reference to a few citations that refer to *Oreortyx picta palmeri*, *O. p. picta*, and *O. p. confinis*.

256. Peterson, R. T. 1961. A field guide to western birds. Houghton & Mifflin Co., Boston. 309pp.

257. Phillips, J. C. 1928. Wild birds introduced or transplanted in North America. U.S. Dept. Agric. Tech. Bull. 61. 63pp. **Notes**: This report summarizes introduction efforts of mountain quail (*Oreortyx pictus pictus* and *O. p. palmeri*) into Alabama, Nebraska, North Carolina, Washington, Idaho, Montana, Vancouver Island, and New Zealand. Information is provided, where available, on the subspecies introduced and on subsequent success of introduced birds.

258. Pierce, W. M. 1916. More bird notes from Big Bear Valley, San Bernardino Mountains. Condor 18:177-182. **Excerpt**: *Oreortyx picta plumifera*. Plumbed Partridge. Abundant near Baldwin Lake, June 19; several flocks of young of various sizes seen, from small birds to some nearly half-grown. I saw a flock of very small young, eight or ten of them, at Bluff Lake on June 20, and on June 29, two broods of small young in the same locality. In an open field near the I. S. Ranch Store I saw an old bird on June 24, with three small young not over a day old.

259. Pierce, W. M. 1916. Notes from the San Bernardino Mountains, California. Condor 18:34. **Excerpt**: *Ortyx picta plumifera*. Plumed Quail. I saw a pair of these birds on June 27 in the buckthorn along the lake shore near the I. S. Ranch. Their actions showed that they had a family of young. These are the only ones that I have ever seen in Bear Valley during several collecting trips there.

260. Pierce, W. M. 1925. Nesting of Leconte thrasher, blue-fronted jay, plumed quail, and black-chinned sparrow. Oologists' Rec. 5:80-84.

261. Pierce, W. M. 1933. Rattlesnake and plumed quail. Calif. Fish and Game 19:62.

262. Pine, D. S. 1981. Identifying sex of mountain quail by length of crest plume. J. Wildl. Manage. 45:1056-1057. **Excerpt**: Between 1972 and 1979 I measured the head plumes of 105 mountain quail (*Oreortyx pictus*) that I shot in fall in Monterey County, California. My purpose was to test the hypothesis that plume length is a valid external indicator of sex for this species, as they otherwise are similar in appearance. The sex of each bird was determined by internal examination of gonads. Birds of the year were differentiated from adults by examination of the greater upper primary coverts, which are buff-tipped in young and steel-gray in adults (Godin 1960). The mean plume length of males including both young and adults (N = 53) was 89.6 mm (SD = 4.5 mm). Females of all ages (N = 52) had a mean plume length of 73.0 mm (SD = 4.7 mm). The probability that the greater plume length for males is due to chance is less than 1 in 1,000 (*t* test). There was a narrow region of overlap in plume lengths from 81.0 to 82.5 mm, involving 3 females with exceptionally long plumes and 5 males with exceptionally short plumes. Plume lengths were distinctive in the other 97 birds. By October, there were no differences ($P > 0.05$) in plume lengths between adults and birds of the year. Plume lengths of adult and young males were essentially equal, as were those of adult and young females (Table 1).

263. Pope, M. S., and J. Crawford. 1998. Annual report: mountain quail research 1997-98. Game Bird Research Program, Oregon State Univ., Corvallis, OR. 35pp. **Excerpt**: In response to the lack of information on mountain quail in Oregon, the Game Bird Research Program initiated a research project in 1994 to: 1) validate and increase the precision of current mountain quail habitat models, 2) determine the life history attributes (movements, survival, habitat use, reproductive rate and diet selection) of mounatin quail in an area where populations are decloning (NE Oregon), 3) determine the same life history attributes of mountain quail in an area where populations are stable to increasing (SW Oregon), 4) reintroduce mountain quail on the basis of life-history attributes in areas where they were extirpated (NE Oregon), and 5) evaluate the landscape structures that may influence dispersal, recolonization, and intra-species interactions of mountain quail in northeastern Oregon. **Notes**: Report presents results of 1997 and 1998 field work including number of birds captured and released with radio transmitters, survival, movements, reproductive behavior and nest success of translocated and resident birds, and food habits of quail in western Oregon.

264. Rahm, R. 1938. Quail range extension in the San Bernardino National Forest. Calif. Fish and Game 24(2):133-158. **Excerpt**: The studies made during 1936 and 1937 on a quail range extension project in and adjacent to the San Bernardino National Forest in southern California are presented in this report. The project, initiated in the summer of 1936, was prompted by the development of a watering device perfected by James Moffit and used successfully by the California Division of Fish and Game within its established quail refuges. The U.S. Forest Service became interested in this device because of the 3,000,000 acres of foothill and woodland areas within the national forests that are either actual or potential quail range and which could perhaps be made more suitable for quail by their use. Many thousands of acres of this area are waterless during the summer and the present studies are aimed at securing and building the factual and biological foundation on which the actual field work of quail range extension, particularly through water development on these waterless areas, might proceed. It was expected that the installation of water on our desert range would attract valley quail; instead, about 75 per cent of the birds using the water troughs were mountain quail. In any area where the brush cover is such that the hunters consider it "good hunting country," it is believed that the mountain quail will not stand up under even medium shooting. They are large, slow moving targets and have such strong terrestrial instincts that they are difficult to flush. They will stand stupidly around and be shot on the ground. On this forest, it is believed, they owe their present survival to the exceptionally heavy brush stands where they are to be found during the hunting season. If valley quail cannot be attracted to the area, an experiment in artificial planting is recommended. If and when the area is opened to hunting, the brunt of the shooting should not be borne by the mountain quail. The extension of mountain quail range is not recommended.